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ABSTRACT

The use of preceptorships in medical education is examined in this guide from the AMSA Foundation. It reflects the insight of medical faculty, preceptors, administrators, and student participants, with major emphasis on ambulatory patient care settings, such as physician's offices. The issues and areas covered also apply to the development of preceptorships for other health professional students. The guide is organized by sections corresponding to these components: goal delineation, program development, curriculum development, program administration, and program evaluation. Goals are divided into three categories: long-range goals, specific learning goals, and general attitudinal and value goals. Ways in which they are integrated into the program and curriculum are discussed. Program operation issues include orientation, debriefing, logistics, personnel and costs, funding sources, and liability issues. A list of consultants is provided, along with sample preceptor application forms, sample evaluation forms, and a bibliography of over 100 citations. (LBH)

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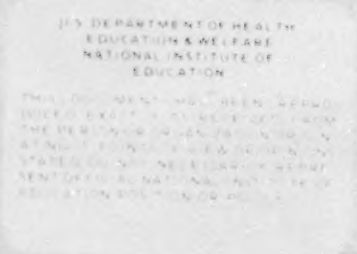
From Initiation to Evaluation

DEVELOPING PRIMARY CARE PRECEPTORSHIPS



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an amsa foundation publication

From Initiation to Evaluation

DEVELOPING PRIMARY CARE PRECEPTORSHIPS

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PREFACE

Sharing Experiences

Experiential learning and the use of preceptorships are not new to the medical education process, as they always have been central to the methods of training physicians. During the first half of this century preceptorships were used extensively by institutions and students as a way of providing experience in the general practice of medicine. However, the trend of seeking experience beyond the medical school changed in the 1950's and early 1960's as medical educators focused on the development of medical specialists.

It was not until the advent of student activism, of family practice as a recognized medical specialty, and of the general public's concern for access to adequate primary care that the preceptorship as a viable educational tool came back into focus. Since then, there has been a proliferation of preceptorship programs emerging with many different approaches to their development and management. Two unfortunate circumstances have arisen from this situation: (1) there has been no concerted effort made to evaluate these programs with any common protocol to understand more clearly their utility and value; and (2) little concern has been given to sharing the experience and knowledge gained that would be valuable to the student, educator and legislative planner.

"From Initiation to Evaluation: Developing Primary Care Preceptorships" is an endeavor of the AMSA Foundation to share the experience and insight of the principal persons responsible for the growing enthusiasm for preceptorships. The Foundation has a long history of developing and supporting community-based experiences for students (6,000 participants since 1968), and the guide is exceptionally diverse as it reflects the insight of medical faculty, preceptors, administrators, and most importantly, student participants. It is to the credit of its authors that it effectively melds opinion with objective observation into what hopefully will become a working reference for the reader.

Paul R. Wright
Executive Director
AMSA Foundation

Value of Preceptorships

Under the authority of Section 772, title VII of the Public Health Service Act, as amended by P.L. 92-157, the Bureau of Health Manpower has supported preceptorship training for medical and osteopathic students since 1972. The thrust of the program, as envisioned by Congress, was to address the problem of inadequate primary care in rural and other communities lacking in medical manpower.

Since the first federal awards were made in 1972, preceptorship programs based within individual schools have evolved in a variety of ways. Program direction has been determined by institutional goals and community health care needs and has been strengthened through the utilization of community resources which enhance and enrich the educational experiences of health profession students. Preceptorship training is also a means whereby the scientific and social aspects of medical education may be integrated under the institutional mantle. However, if preceptorships are to survive on a long-term basis, they must be accepted within the academic community. The value and contribution of preceptorship training to physician education must be self-evident and must not compromise academic standards or educational concepts established by the institution. Program management must be such that there is maximum coordination between medical school and community faculties in providing an educational experience of high academic quality.

It is not the intent of the Preceptorship Program Guide to be so prescriptive as to diminish or inhibit the diversity found among existing programs, but rather it is hoped that this document will serve as a guide for developing and established preceptorship training programs in medical and osteopathic schools.

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GLOSSARY OF TERMS

Several terms are used to describe what this guide refers to as preceptorships. These include primary care clerkships, community medicine rotations, tutorials, externships and extramural rotations. In this guide, all of these educational experiences meet the definition of a preceptorship if they include the following:

- A preceptor (practicing physician, usually in a primary care specialty who is not a full-time faculty member at a medical school).
- A preceptee (a medical or osteopathic student at any level of training).
- Off-campus location (usually a physician's office, small clinic or community hospital). The student may or may not be required to live in the community.
- Set duration of experience (usually four or more weeks of full-time participation or part-time participation for an extended period).

While preceptorship experiences in small hospital settings are not excluded, the major emphasis in this guide is on ambulatory patient care settings, such as physician's offices. Many of the areas and issues covered are oriented toward these sites.

The term "preceptor" refers to the physician or physicians at the preceptorship site who serve as faculty members directly responsible for the students' educational experience.

The term "faculty" refers to teachers at the university medical center who provide administrative support of a preceptorship program, sometimes make site visits and evaluate the overall program and the student for grading purposes.

The term "medical students" covers both allopathic and osteopathic students.

Although the authors are aware that a growing number of medical students are female, to avoid clumsy prose we have used the term "he" to encompass both sexes.

INTRODUCTION

Off-campus preceptorships for medical students are not a new phenomenon in medical education. The University of Wisconsin Medical School has had an ongoing preceptorship since 1926, and several other schools have had long-term commitments to this kind of educational experience. In the past five years, a number of medical schools, student groups and community-based physicians have shown increasing interest in the learning opportunities provided by preceptorship experiences. There has been a corresponding increase in the number of preceptorship programs for medical and other health professional students.

One factor that stimulated interest in preceptorships was the realization that medical education, by the nature of the educational experience and role models it provided, was encouraging students to enter specialty practice. The advent of family practice as a board-certified specialty was part of an effort to emphasize the importance of the primary care physician. Creation of a new specialty in primary care, however, may not be enough to attract young health professionals--particularly if students are not exposed to the practitioners and settings involved in primary care. Students who see primary care faculty only in a medical center have limited role and practice models and do not have a realistic basis for deciding on a career in primary care.

One way to reinforce the growing interest of medical students in primary care careers is by providing opportunities for them to gain first-hand experience with primary care physicians in their everyday practice. While such exposure helps balance the influence of traditional medical school education, the effectiveness of this tactic in producing more primary care physicians awaits further comprehensive research and follow-up of graduates of preceptorship programs. The evidence from available sources, however, (see Appendix 3) indicates that these experiences are valuable, not only as a way of helping students make career decisions, but also as clinical educational experiences.

Programs that have developed and administered preceptorships for medical students in a variety of settings, for multiple purposes and with disparate characteristics and educational objectives, have acquired considerable experience. This guide is an attempt to distill this information so that new ventures into preceptorship development may benefit from the experience of others. It deals with issues involved in setting up and running preceptorships, the pros and cons of differing philosophies and methods, potential problem areas and recommendations that have evolved from past experience.

Who Might Use the Guide

The guide is designed for anyone interested in creating a new primary care preceptorship program for medical students. Its readers might include faculty or students at a medical school with no preceptorship programs and private or public groups of medical care providers in the community. Although the guide focuses on preceptorships for medical and osteopathic students, the issues and areas covered also apply to the development of preceptorships for other health professional students.

Individuals involved in a preceptorship program also may find the guide of value in suggesting alternative methods of dealing with problem areas, expanding or changing program characteristics and developing useful evaluative techniques.

Basic Focus of the Guide

Definition of specific program goals is the foundation for nearly all decisions in developing and administering a preceptorship program. For all other program elements to be effective, clear delineation of goals is essential. In this guide, we identify *goal delineation* as the first step in the cyclical process that concludes with *program evaluation*.

These components are outlined in Figure 1, and the guide is organized by sections corresponding to these components.

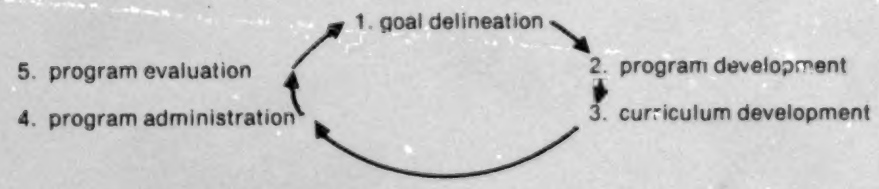

Figure 1

For our purposes, each of these components is separate. In reality, they are seldom mutually exclusive. Often goals become clearer as the program matures. Program goals should be reviewed in light of feedback from the evaluation process. This will ensure that the program remains dynamic throughout its existence.

The next section lists representative goals set by existing preceptorship programs. These goals, compiled from many different programs, are included for illustrative purposes.

GOAL DELINEATION

Goals defined by programs may be divided into three categories: (1) Long Range Goals; (2) Specific Learning Goals, which deal with the acquisition of knowledge about or experience with particular aspects of the learning environment; and (3) General Attitudinal and Value Goals, which are designed to alter, reinforce or introduce what are judged to be desirable values and orientations toward aspects of medical practice. Listed below is a summarized version of the goals of a wide variety of programs.

Long Range Goals

1. To provide more primary care physicians.

2. To encourage students to enter medical practice in such underserved areas as rural and inner city communities.

3. To broaden the scope of community medical care resources by developing linkages between the university medical center and private and public medical care providers in communities.

Specific Learning Goals

1. To provide a clinical learning experience in primary care as part of the medical school curriculum.

2. To teach students about the kinds of clinical problems encountered in an office practice as compared to a hospital setting, including mechanisms for ensuring comprehensive and continuing care.

3. To teach students the diagnostic and therapeutic techniques appropriate to an office practice.

4. To teach students to view and treat the patient in the context of his family and community.

5. To permit students to apply basic classroom knowledge in the biomedical and behavioral sciences to direct patient care situations.

6. To broaden and enhance the student's interviewing and relating skills through experience in providing care in an office setting.

7. To provide knowledge through experience of the referral and consultation processes in a community setting with multiple and varied health resources.

8. To help the student understand the role and lifestyle of the primary care physician in the total health care system of a community.

9. To enable the student to learn through *experience* the skills, roles and capabilities of such office personnel as physician extenders.

10. To develop in the student an understanding of preventive health practices and their utilization in a primary care practice.

11. To provide an understanding of public health and environmental factors in relation to the private practice of medicine.

12. To expose the student to the business and monitoring aspects of medical practice, such as bookkeeping, records systems, appointment scheduling and payment mechanisms.

General Attitude and Value Goals

1. To provide an opportunity for the student to explore and evaluate his own career goals and values in medicine.

2. To provide an opportunity for the student to experience and evaluate primary care as a career path.

3. To allow the student to observe and experience the medical as well as personal lifestyle of a primary care physician in a community.

4. To allow the student to become acquainted with the methods used by the primary care physician for continuing education.

5. To encourage the student to value such concepts and practices as continuity of care, treatment in a family/community context and the physician-patient relationship as they affect health and illness.

6. To develop an awareness in the student of roles and skills of other health professionals.

Although the preceding lists of goals are by no means exhaustive, the areas included represent the kinds of objectives repeatedly described by different programs. Whatever the goals selected for a particular program, careful attention should be given to the relationship of each program characteristic to the accomplishment of stated goals.

Most programs will incorporate long-range goals, specific learning goals and general attitude and value goals. The following example demonstrates the relationship of program characteristics to stated goals:

(1) *Long-Range Goal* - to provide more primary care physicians for underserved areas, such as rural and inner city communities.

Program characteristic - priority is given to recruitment of preceptors in underserved areas; a mechanism is developed to assess the impact of the experience on the career choices of students.

(2) *Specific learning goal* - to teach the student how to use the available private and public health resources in an area.

Program characteristic - student has an opportunity to use health resources, will be evaluated on how well he uses resources.

(3) *General attitude and value goals* - to provide an opportunity for the student to explore and evaluate his own career goals and values in medicine.

Program characteristic - student identifies values and career goals both before and after the preceptorship. Change noted and career counseling made available.

PROGRAM DEVELOPMENT

Initiation

Programs may be initiated by any one of the three groups typically involved in a preceptorship experience: medical faculty members and/or administrators, medical students or community physicians. Although a particular group often formulates the initial idea, the cooperation of the other two groups is necessary for success. The earliest possible involvement of all parties greatly enhances and expedites program development.

This does not mean that an initiator with only a vague idea should immediately solicit the collaboration of others. To gain needed support, initiators should familiarize themselves with some basic issues in program development. They should have a clear conception of the goals of the proposed learning experience and should be prepared to answer potential questions from each group whose collaboration is sought. For example, medical faculty might be concerned with monitoring the educational quality of the experience; the qualifications of the proposed preceptors; whether the curriculum already includes similar learning goals; the time and effort commitment required of faculty; the method of evaluation of students.

Medical school administrators will be concerned with the same issues, as well as with factors such as medical liability and administrative costs and procedures.

Medical students will be concerned about the program's place in the overall curriculum; the program's educational value relative to other curricular opportunities; whether the program will be required or elective; the extent to which they will have freedom to choose the site and the preceptor; methods for evaluating their performance; financial aid.

As potential preceptors, physicians in the community will be concerned about the time and effort commitment expected of them; the level and quality of students who will participate; whether they will be expected to provide housing for students; medical liability; remuneration or incentives which might be offered.

In addition, the concerns of lay community members who will come into contact with the students should be considered. These include the kind of clinical supervision provided students; the extent to which the student's presence may delay or interfere with the provision of medical care by community physicians; the social behavior of students; benefits the program will have for the community on both a short and a long term basis.

Although firm answers to these questions are neither possible nor desirable in the early stages of program development, careful consideration may help gain the initial interest and further cooperation of the members of each group. (Each of the issues mentioned will be discussed in detail later in the guide.)

At the other extreme from plunging in with a vague idea is approaching groups whose cooperation is needed with a detailed, structured and final program plan, with the expectation that they will fit themselves into it. In general, people object to participating in a system in which they have had no input. Also, by including all affected groups in program planning, the experience and expertise of each can be put to maximum use.

When the medical institution initiates the preceptorship, good communication between faculty and preceptors is key to maintaining the program.* Preceptorships provide an excellent opportunity for interchange between the academic and the practicing physician and include great potential for each to learn about the other's role within the health care system. The cooperation of students, preceptors and faculty in initiating a program offers the best potential for meeting the needs and expectations of all three groups and for making the program educational and relevant. A dynamic interaction can be initiated when no one group has all the answers, but only particular areas of expertise.

Frequently, new preceptors are concerned about their ability to be effective teachers. It is important to emphasize their unique experience, knowledge and skills as distinct from the expertise of institutional faculty. As a way of recognizing the preceptors' key teaching role, several established programs consider them "community faculty" or "clinical faculty."

Site Selection

Site selection involves deciding both on particular communities and specific practice organizations within the communities. The kinds of communities and practice organizations selected will depend on the nature of the educational experience desired for students. Sites in inner city areas may be the focus of one program, remote rural sites may fit into the goals of another, while still others may wish to offer experiences in both kinds of areas. If underserved areas are not a particular interest of a program, sites may be chosen anywhere, with perhaps greater attention focused on the practice characteristics (e.g., solo versus group or team model) or clinical learning offered the student. Again, selection of sites will be partially determined by the program's goals and objectives.

Information concerning the desired criteria for site selection can be requested on a Preceptor Application Form (see Appendix 1 for a sample form). Thus, if a program goal involves exposure to team practice models, information can be gathered about site staffing and allocation of responsibilities. Similar information requests can be made with regard to other criteria. Or, if a limited range of site characteristics is desired, the initial recruitment letter to physicians can state these requirements so that all respondents meet the desired attributes.

Preceptor Selection and Recruitment

Factors that might be considered in selecting effective preceptors include medical specialty, teaching ability, clinical competence, time available for teaching and commitment to program goals. To judge the appropriateness of a physician for the role of preceptor, the program coordinator might consider such factors as: involvement in formal and informal continuing education activities; board certification;

*Several programs have been initiated either by individual students, by groups of students, or by community physicians with virtually no input from university faculty.

membership in medical societies; affiliations with hospitals; nature of practice (e.g., percent of patients seen for acute problems versus those seen for preventative and maintenance care); referral patterns and use of allied health personnel.

Apart from such indicators, perhaps the most useful index is the physician's interest in serving as a preceptor. To determine the extent and quality of his interest, the program's characteristics and its expectations of him should be provided in detail. Serving as a preceptor involves a substantial commitment in time, energy, patience and willingness to "learn as you go along."

Conveying clearly to the potential preceptor what he is volunteering to do is necessary to establish an effective program. Initial participation should be limited to a specified time period so that both parties have the option of graceful withdrawal.

In identifying potential preceptors, it may be helpful to consult with local specialty societies or the county or state medical societies. Since they have continuing contact with community physicians, these groups should be able to identify those who possess not only adequate clinical skills and facilities, but also will provide appropriate professional and personal role models.

Potential preceptors should be given, in addition to a thorough description of program characteristics and expectations, information on the various incentives offered. For many physicians a major appeal is the satisfaction gained through participation in the medical education of future physicians and the stimulation provided by the student's presence. A physician also may be interested in attracting a future partner or replacement.

Other incentives offered by existing programs include:

Opportunity to apply for a clinical faculty appointment or automatic receipt of such status by becoming a preceptor.

Free participation in continuing education programs at the university medical center.

Use of university medical library services.

Continuing education credit offered by specialty societies for teaching students.

Increased familiarity with and access to medical center consultative services.

Receipt of a certificate stating the physician's contribution to medical education.

Invitations to preceptors to lecture within the medical school curriculum on relevant aspects of medical practice.

Financial remuneration in the form of direct payment to preceptors.

The last incentive is one of the more controversial among preceptorship program personnel, with strong feelings for and against paying preceptors for their services. Those who favor payment maintain that a busy practitioner should be reimbursed so he can make the needed time for teaching available. Although the amount of remuneration rarely is comparable to the income generated through patient care, the value of a preceptor's teaching contribution must be considered. Those against payment for preceptors argue that payment is unnecessary and escalates program costs; that these funds might better be spent for housing and travel costs for students; that preceptor payment is an open-ended expense that is difficult to administer; that young programs may begin a precedent that will be difficult to maintain

as the program continues; and that limited funds necessarily will limit the expansion of the program so that potential preceptors in some communities may have to wait until the budget will permit their participation. Apart from these philosophical differences, several factors might be considered in deciding whether to pay preceptors. The most obvious is the availability of funds. Without money, further consideration is irrelevant.

Another important factor is the extent of time commitment required of preceptors. If the program has a potential pool of several hundred preceptors who are expected to have one or two students a year for a period of four to six weeks, payment may not be an essential consideration. However, if a preceptor is expected to have students in his office on a fairly regular, year-round basis, it may be unfair and unrealistic to expect him to offer his time without financial remuneration.

The prevailing ethic of the particular medical community also should be taken into account. In some communities, physicians may expect to volunteer their time for a variety of activities. In others, this attitude may not prevail. Those responsible for making decisions on payment of preceptors should be sensitive to such values and attitudes in their particular area.

Selection of Preceptees

Level of Student: A major variable in determining which students to select for a preceptorship is the level of student for whom the experience is designed, which depends on the nature of the goals outlined for the project.

A program that hopes to expose students at an early point in their training to a particular practice situation may be designed for pre-clinical students. This orientation will affect the activities and expectations outlined for students, as well as the kind of training provided by the preceptor. Pre-clinical students will require greater time commitment and supervision by the preceptor. More advanced students may become involved in direct patient care to a greater extent and require in-depth teaching in clinical areas.

The belief of a number of programs is that for a preceptorship to influence specialty choice, the student should engage in the experience at an early point in his education. However, many students do not make a firm decision with regard to specialty even as late as their senior year.

Whatever level of student is desired will affect a variety of program characteristics, and the decision should be made early in the planning of a preceptorship.

Recruitment and Matching of Students: Required programs will not have to be concerned with student recruitment. However, programs that are elective or are administered by groups outside of the medical school must deal with recruitment and selection of students. And programs, no matter what their auspices or elective/required status, must develop a method of matching students with preceptors and sites.

Many programs are offered on an elective basis to students within a particular medical school and also are open to students at other medical schools. Programs administered by such organizations as American Medical Student Association Foundation, Student National Medical Association or by community physicians are open to students at any medical school and often are listed in medical school elective books. But many elective books are quite lengthy, and the information included may be insufficient and may not generate interest. Less visible programs might want to disseminate program information to potential preceptees. Brochures, posters for display in medical schools and use of past participants as program advocates may increase available recruits for such programs.

Criteria for matching preceptors and preceptees depend on a variety of program characteristics. Some programs sponsor meetings or workshops for prospective preceptees and preceptors to interact, exchange information and form a basis for

preferences in future selection. Where this is not feasible, written information about participants may be provided, or telephone contact and letter exchange may be encouraged.

It is helpful for the program coordinator to maintain a file on each preceptorship for students to review. These files should include basic Chamber of Commerce information on the community, site visit reports by institutional faculty and evaluation by former students. Where possible, prospective students should be referred to former participants for first-hand information.

Most programs make an effort to allow students to choose among the sites and kinds of experiences available. In addition, preceptors may have particular preferences with regard to the kinds of students placed with them, such as sex or marital status. Dealing with these details of student placement requires coordination by project staff and a good deal of forethought in recognizing potential areas of conflict. Matching can be greatly facilitated when both preceptors and students are well known to project staff.

Some of the more practical factors of matching are covered in a later section dealing with such logistical aspects as housing, transportation, financial assistance and including the preceptee's spouse and/or family. Other important considerations that may affect student placement concern the physical and social attributes the student brings to the community. Based on experiences of programs that have had to deal with conflicts after a student has arrived at a site, it is recommended that, wherever possible, potential problems be anticipated and taken into account during the matching process.

Community members at many preceptorship sites may have more conservative values than those in metropolitan areas. A preceptee's style of dress, length of hair and personal habits may serve as a barrier to community acceptance and have a negative effect on the student's learning experience and on the future use of that site for preceptorships. Similar difficulties may arise if a student wishes to bring a "friend" along to the site. Such a lifestyle may not conform to the expectations a community has of a future physician and may interfere with acceptance of the student by both the community and the preceptor.

Placing students who would be minority group members in certain communities may present problems as well, and programs should be aware of the potential for conflict in such placements.

At least two approaches may help circumvent these kinds of problems. One is to define guidelines and requirements for all potential preceptees so that students are aware of them and agree to conform to program expectations as part of their "contract" with the preceptorship program. In addition, familiarity with student characteristics and site preferences should enable programs to place students appropriately.

Length of Preceptorship Experience

Another area of controversy among preceptorship advocates is optimal length of the training. Some feel that an intensive experience of four to six weeks is sufficient to accomplish a wide variety of goals, including enabling students to make career decisions about primary care in underserved settings. Others feel strongly that such a length of time only serves as an orientation period and that a much longer period is required for a student to appreciate and/or evaluate realistically particular settings as future practice options. A number of schools feel that the preceptorship experience should be reinforced at various points during the student's training. They therefore provide opportunities for repeated experiences throughout the curriculum.

There are, however, practical constraints related to decisions concerning length of preceptorship experiences, such as available time within an established curriculum. Unless the developers of a program are willing and able to attempt major

alterations in a curriculum so that students can devote larger blocks of time to an off-campus experience, program goals and characteristics may have to be developed and/or modified to fit within the bounds of what is possible, rather than what may be desirable.

Program designers, once a decision as to length of the experience has been made, will find that this factor affects both the number of goals which may be accomplished and the methods to be used in achieving them.

CURRICULUM

The specific curriculum used in preceptorship programs may be highly variable. The content to be learned as well as the methods of teaching students will be influenced by: 1) whether the program is required or optional within a medical school; 2) whether it is operated outside the auspices of a medical school and therefore not necessarily subject to academic credit; 3) the educational level of students involved; 4) whether the program is oriented to and run by one medical school department or is interdepartmental; 5) the length of the preceptorship experience; 6) the specific objectives or goals defined by the program.

Because the nature of the curriculum for any program will be unique, this discussion will not focus on the details of any one type of curriculum, but rather will provide information about the varieties of curriculum methods and materials. The individual program developer can determine which are appropriate for his preceptorship.

Some General Guidelines

The degree of detail and specificity in curriculum desired by a particular program will be a function of the personal preference of program developers as well as of medical school constraints that may necessitate formal methods and materials. However, the greatest strength of a preceptorship experience lies in its potential for providing a unique, individualized experience in medical care. As such, a program may suffer if too much structure and too many specific teaching and learning methods are attached to it.

In developing the curriculum, medical educators should avoid educational jargon. An overuse of terms peculiar to an educational setting may confuse or alienate potential preceptors.

As a way of preserving the uniqueness of the experience while ensuring that program goals are met, the following general guidelines may be used:

1. Provide both preceptors and preceptees with an adequate description of program goals and expectations.

2. Provide preceptors with a list of diagnostic, therapeutic and laboratory skills in which participating students are competent.

3. Encourage the preceptee and preceptor to develop together a set of learning objectives that fit within the program goals but that meet the particular needs of the individual student as well as the special interests and competencies of the preceptor. This will avoid a disparity in expectations.

4. Encourage preceptee and preceptor to review these learning objectives at several points during the experience to determine the extent to which they are being met, modify them based on realistic assessment of the learning context and evaluate the adequacy of the setting for accomplishing the objectives.

5. Upon completion of the preceptorship, have both preceptee and preceptor evaluate the extent to which program and individual goals have been met and share their perceptions.

6. Provide an opportunity for development of preceptors as faculty by conducting either area-wide or regional workshops.

In encouraging the participants to develop and use their own structure, the danger of either imposing rigid external expectations or creating too vague a learning situation may be avoided. For many medical students, the preceptorship experience may be their first opportunity to set their own learning objectives and identify their own preferences in methods of learning. This may have great value in the important area of continuing education for their later role as physicians in practice. The preceptorship should not be viewed merely as a mini-medical school experience, but rather as an opportunity for learning and for career and role exploration.

Informal Teaching

Informal teaching is an important feature of the preceptorship experience. Most programs encourage each preceptor to develop his own teaching style and vary his methods for different students. However, many physicians new to the role appreciate some direction as to appropriate methods for precepting students.

New preceptors generally have three basic questions: (1) What are effective methods for teaching? (2) How should I delegate medical responsibility for my patients? (3) What does the medical center expect of me? It is useful to anticipate and address these questions.

If an orientation session for new preceptors includes experienced preceptors, the experienced group often can answer questions and provide information on teaching techniques. Site visits by medical faculty and program staff also provide opportunities for consultation with preceptors concerning teaching methods.

When a preceptorship involves direct patient care by clinical year students, typical teaching strategies include:

1. Initial work-up of patient by student, followed by preceptor's examination and subsequent discussion of consistency and discrepancies in findings. The preceptor should make certain that the student is provided with a variety of patient problems.

2. Use of on-call rotations and emergency room duty.

3. House calls, nursing home visits, hospital rounds.

4. Student-conducted in-service programs for special groups, such as schools, community groups, nursing homes, on such topics as diabetic care, well-baby care, drug abuse.

5. Participation in all areas of the preceptor's daily activities, including social and recreational.

6. Preceptor observation of the student's interaction with patients and discussion of his performance.

7. Student's observation of the preceptor interacting with patients and discussion of the preceptor's procedures.

8. Student performance of selected laboratory, diagnostic and therapeutic procedures, consonant with his level of training, under the supervision of the preceptor.

Pre-clinical preceptees primarily will observe the clinical aspects of the preceptor's practice. However, within the limits of available time and program guidelines, such students may participate in a number of clinical activities with close supervision by the preceptor.

If program goals include exposure for all levels of students to allied health personnel and professions, the curriculum should provide time and opportunity for the students to interact with these persons. If personnel in some areas are not employed at the site, arrangements can be made at local facilities for the student to learn about the roles of such professionals as social workers, school psychologists, occupational therapists and x-ray technicians. Contact with a variety of health personnel also may be available through such community outreach programs as medical assistance screening clinics, family planning programs and community mental health centers.

In presenting the business and monitoring aspects of medical practice, the curriculum should familiarize students with the work of the facility bookkeeper, third-party payment forms, purchase of supplies and equipment, study of relative costs to the patient of medical procedures, laboratory tests and medications. The student should be aware of the relationship between clinical procedures ordered and the patient's financial situation and should be able to examine the physician's record-keeping system and its use in patient work-ups.

Formal Teaching Methods and Materials

The more formal teaching methods used within programs include:

1. Case Presentation - Students may be assigned individual patients or families for work-up as case histories. More advanced students may present these cases to the staff of the facility or to university faculty. Pre-clinical students may benefit by attending scheduled case conferences at their site as well as at associated hospitals and other health facilities.

2. Lectures and Seminars - In programs where several students are placed in a single site or in contiguous sites, it may be desirable to plan a variety of didactic lectures and seminars on topics relevant to the preceptorship experience. These may be particularly useful for pre-clinical students where exposure to a variety of health professionals and institutions is included in the list of program objectives. For clinical-level students, ongoing seminars and lecture series within the local medical community may allow them to observe the continuing education and intellectual stimulation available to preceptors and other health professionals.

3. Audio and Video Tapes - Audiovisual aids may be used as part of the orientation for students, as well as while they are at the site. Where equipment is available, tapes on selected clinical topics and psycho-social concomitants of health and illness may supplement ongoing clinical experience. A list of tapes, slides or movies available within the area could be provided to the student.*

*The National Health Council (1740 Broadway, New York, NY 10019) is compiling information on audiovisual aids.

4. Video taping of Student-Patient Interaction - This method has proven valuable in programs of sufficient length that have used it as both evaluation technique and teaching method. Where equipment is available, video tapes of student-patient interaction may be reviewed by students, preceptors and medical school faculty.

5. Formal Debates - Formal debates on current issues in health care and medical training are an effective technique for stimulating interaction among preceptors, preceptees, site staff and community members.

6. Student Projects - Many preceptorship programs require or recommend that a student undertake an individual or group project, usually dealing with some aspect of community health. The nature of the project is decided mutually by preceptor and student. Projects are suitable for students at any year of medical school, though clinical-level students should select areas consonant with their advanced level of training. A common goal of community-based projects is encouraging the preceptee to discover larger, more pervasive issues affecting health and illness than he might confront in the treatment of individual patients in an office or hospital setting.

7. Reading Assignments - Students may be assigned either required or recommended reading in medical journals, books or related literature as an adjunct to their experience.

8. Daily Log - Students may be required to keep a daily log of patient contacts, detailing histories, procedures, patient disposition, diagnosis and follow-up. These may be used to evaluate and improve student performance. In addition, compilation of such information for a succession of preceptees may yield valuable material about patient compliance and patterns of health and illness in the particular community. These data may help orient and teach future students.

Learning Resources

Many rural sites do not have medical library facilities available. Some programs provide the student with a list of recommended medical books and journals that he might bring to the site; others provide reprints of articles and materials essential to the preceptorship experience. Medical schools may provide photocopy or loan services of their libraries to preceptors. Students also may seek information about patient and community problems by consulting with hospitals, clinics and health and social service agencies in the community.

Many programs try to expose the student to the total network of health care in the community. Necessary consultation with existing agencies and follow-up of patients referred to other health resources may be useful learning approaches in meeting this goal. Agencies that might prove helpful include Health Systems Agencies, public health departments and welfare agencies.

Site visits by faculty either during or after the preceptorship also serve as a teaching resource. Both options have advantages and disadvantages. Some students feel a visit during the program is not relevant or necessary. If handled with sensitivity, however, the visit allows a faculty member to assess student effectiveness, provide some specific patient-oriented consultative services and troubleshoot as appropriate. A site visit made after the student has left the field provides an opportunity for the faculty member and preceptor to discuss both the student's and the physician's evaluations. Grossly positive and negative points can be discussed with the preceptor, as well as the student's assessment of the most important aspects of his preceptorship and areas in which he would have like more or less experience.

PROGRAM OPERATION

Orientation

Adequate orientation for each group of participants is an important key to the program's success. An understanding of program and individual expectations by preceptors, students and faculty will minimize misunderstandings and inappropriate activities. The orientation, whether formal or informal, should include different emphases for the different participants.

Orientation for the students should prepare them for what they will be doing, allay anxieties and provide information related to their participating and/or living in a community setting. The student's orientation may be formal, as in an organized group meeting at the university, or informal, as in one-to-one meetings with program faculty, preceptors and former student participants. Ideally, the student will receive an orientation at the institution prior to leaving and one with the preceptor upon his arrival at the site. At the institution, students and faculty should discuss the overall goals and expectations of the program, the students and the school. In particular, evaluation requirements and grading criteria should be discussed. An important factor in helping a student to maximize his experience is emhasis upon the *community* nature of the preceptorship. Students might be encouraged to look at the practice and lifestyle of the physician (how he handles phone calls, "gets away", social life, spouse's lifestyle and opportunities); office management; economic determinants of care; role of other health professionals; role and relationship of public and private medical sectors, etc. Students should be made aware of any social and cultural differences in the community.

Written information, such as site descriptions and final reports of former preceptees, are helpful background information. Former preceptees and/or their spouses are an invaluable resource, and can provide the new student with practical information about their own experience (e.g., if it is important to participate in church functions or to have a phone installed immediately; to introduce oneself to store clerks). It also may be beneficial for the student and preceptor to have an opportunity to talk prior to the student's arrival. It is important for the physician to orient the student to the operation of his practice and to the community in general.

In addition to providing the preceptor with the information described in the section on preceptor selection and recruitment (page 6), the following points should be covered during orientation:

- number of patients a student should see;
- types of community projects the students will be expected to do;
- the educational--not service--nature of the program;
- any concern/questions the preceptor may have if a minority or female medical student will be placed at his site;
- the importance of the physician's orienting patients, office and hospital staff to the student's presence and role;
- information about the medical school and how the preceptorship experience fits into the overall curriculum.

The duration and frequency of orientation for preceptors will depend on their past experience. The orientation program should clarify the preceptor's role in relation to institutional faculty in responding to any concerns the preceptors might have. Orientations may take place either at a central site with all preceptors attend-

ing or with individual preceptors in their community. The nature of the orientation will depend particularly on resources available to the project, desire and ability of preceptors to attend a central orientation and distances involved. It is important for program administrators not to "overdemand" that preceptors come to central orientations if it would cause a hardship for them. It also might be advantageous for the faculty representative to discuss with the physician exactly what liability coverage is provided the student by the university and what coverage the physician is expected to provide.

The community generally can be oriented to the program by publicizing the fact that students will be arriving and what they will be doing. An article in the paper prior to an individual student's arrival is a good publicity method, as is having the student talk with local clubs (e.g., Kiwanis, Chamber of Commerce, Rotary) during his stay. If the site includes a community board for the medical center, the chairperson of that board should be oriented prior to the initial student's arrival so that he is aware of what the student will be doing, possible constraints upon the physician's time, etc. In addition, a brochure describing the preceptorship and explaining the student's role in the physician's practice might be provided to patients. Patients must be assured that they need not be examined in the student's presence or by the student.

Debriefing

A debriefing for students after the preceptorship experience can be useful for several purposes. When held with participants from other sites, the session offers students an opportunity to discuss and integrate their learnings into their overall education. This also aids the students' re-entry process into the academic environment. Informal feedback about students' experiences can be useful for staff evaluation of preceptors and sites. One effective format is a small group discussion, where each student takes 10 to 15 minutes to describe his experience, followed by group brainstorming on how the project could be changed to be more effective.

Although most programs have a mechanism for continuous feedback to the preceptor, debriefing after each student leaves is important. Feedback to the physician on faculty and the students' perceptions of the program can be used both to provide positive reactions and discuss potential problem areas. The preceptor's assessment of student performance also may contain insights not stated in the formal written evaluation.

Logistics

Certain logistical arrangements that must be made before the student begins his program relate to whether the student's spouse and/or family goes along, housing, transportation and financial assistance. The spouse issue is an important one, particularly if one of the objectives of the program is to interest the student in practice in a particular area. Research has shown that the spouse's knowledge of and satisfaction with an area is an important factor in such decisions. Most current preceptorship programs favor taking the spouse; some do not because they feel the spouse might demand time the student otherwise would spend in the preceptorship. Factors that must be considered if the spouse is included are his role in the project, if any, his role in the community and housing. Preceptees might live with their preceptor, stay in unoccupied hospital beds or live in an apartment or trailer rented by the project on a year-round basis. Living with the preceptor or a member of the community often leads to meaningful and enjoyable experiences; however, care must be taken to ascertain that this will not be an imposition on the family and that differences in lifestyle will not cause a strain.

At some sites, transportation can be a major problem for students. For example, it would be unwise to place a student without a car in a community where the hospital or other facilities (such as nursing homes) would be 20-30 miles away from his base.

Depending on project resources, financial assistance may or may not be provided to the students. Some projects provide no reimbursement; others provide transportation costs, a stipend and per diems.

Personnel and Costs

At the minimum, a project director will be needed to coordinate the entire program and assure smooth operation. Depending on the scope of the project, this person might work from half- to full-time. Clerical help also should be available.

A program evaluator is essential to ongoing assessment of the preceptorship. Again, depending on the scope of the project, this person could be either part- or full-time and his responsibilities might include simply questionnaire development or might encompass interviews with participants, site visits, structured feedback to preceptors, etc. Evaluation too often is given little emphasis. As a result, the evidence to justify continued commitment to a program is lacking. With funds for medical education under increasingly close scrutiny by legislators and third-party reimbursors, programs should plan ahead and prepare answers related to their effectiveness and eventual impact on the health care delivery system.

In addition to salary costs, expenses of running the program may include preceptor salaries, student stipends and/or living allowances; teaching materials; orientation and debriefing programs; travel for preceptors, students and faculty; data collection and analysis costs; communication costs (e.g., telephone, postage, printing and supplies). With regard to stipends, the traditional concept that a student receives no pay for educational programs no longer is universally accepted. Many institutions recognize that paying the student to cover his moving and housing expenses at the site is justifiable and that such funding does not impair the preceptorship's educational value.

Funding Sources

Preceptorships required within a medical school curriculum may receive all or some financial support from the institution. In many cases, however, the added financial burdens of housing students, travel to sites and payments of preceptors and program staff may require other sources of funds. Programs that do not originate in the medical school often rely entirely on outside funding sources. Care must be taken to avoid inconsistencies in the funding provided students or preceptors by different sources.

Potential sources include:

1. *Federal Government:* Contracts and special projects grants are the best known means of obtaining funds.

2. *State Legislatures:* Most states are concerned with attracting medical students to practice in areas of need. State legislatures may provide funds to implement and maintain programs with appropriate goals.

3. *City and/or County Governments:* Funding may be available from these governments as well. In large urban centers with inadequate medical care in inner city areas, a program aimed at retaining young physicians may prove particularly attractive.

4. *Private Foundations:* A number of large foundations deal with aspects of the medical care maldistribution problem. Support for preceptorships often falls within the guidelines of these foundations. There also are smaller foundations that confine their endeavors to certain geographic areas. Many are concerned with health issues and may be worth investigating.

5. *Chambers of Commerce:* Local Chambers of Commerce often are concerned with medical care as an incentive in retaining and attracting the population needed for a financially healthy community. They may support a preceptorship as a method of encouraging young physicians to return.

6. *State and County Medical Societies*: Such groups may be involved in the design and implementation of preceptorship programs, and where funds are available, may be willing to provide financial as well as personnel support.

7. *Hospitals:* Private and public hospitals have provided financial support for preceptees placed in their community. If stipends to students or funds for the program are not given, hospitals may be willing to provide free room and board.

8. *Physicians:* Private physicians, in addition to volunteering their time as preceptors in some programs, have provided stipends to students placed with them. Some also provide room and board.

9. *Private Social and Service Clubs:* As with smaller foundations, many social and service organizations are concerned with health issues. The Kiwanis Club, Rotary, Women's League or University Alumni Associations may provide support. Appropriate groups to approach vary in different areas.

If a program hopes to obtain local suport, it may be necessary to find several different sources, depending upon the nature and scope of the project. This requires a good deal of leg work and planning but may be of advantage in the long run because the commitment of funds by each source may be more easily maintained, as compared to a large funding commitment by a single source.

Liability Issues

With malpractice suits uppermost in the minds of many practicing physicians, potential student liability and insurance coverage may be factors in a physician's willingness to participate in a preceptorship program. The coverage provided students varies from institution to institution, ranging from insurance only when the student is engaged in patient contact within the confines of the medical school to coverage of the student while in an approved program at another institution or an extracurricular activity not part of the teaching program.

Most students, as well as many faculty members, are unaware of the extent of liability coverage provided the student. A pervasive feeling has been that students, not being full "professionals," would not be sued. In the last few years the situation apparently has changed. In a recent Association of American Medical Colleges (AAMC) survey, 22 institutions (of 79 responding) stated that their institution had experienced an incident or incidents "involving potential student liability." Only 17 of 60 institutions responded that their students are covered when engaged in patient contact that is not part of the regular teaching programs (such as while externing or participating in a free clinic).

Faculty developing a preceptorship should investigate the type of liability coverage their school will provide for participating students both in preceptors' offices and at hospitals in which these physicians practice. Options for providing coverage

include giving the preceptor a faculty appointment so that regular institutional coverage is applicable; having a student placed on the payroll of the preceptor's clinic or hospital to obtain regular employee coverage; negotiating a comprehensive student policy through the university or state medical society; examining the preceptor's policy to ascertain whether students under his supervision are automatically covered or whether an inexpensive rider for such coverage could be attached. The situation will vary for each institution.

Most schools, as well as independent organizations that place students in preceptorships, have ignored potential liability aspects of their programs. With the rash of malpractice litigation in recent years, it would be wise for program directors to assure that their students have adequate coverage.

PROGRAM EVALUATION

At a minimum, evaluation should be designed to determine the extent to which goals and objectives have been met. It is therefore most important that goals and objectives be stated in a manner capable of being assessed. Careful attention to the definition of the terms used in stating a general goal is necessary for assessing its achievement and also aids the evaluator in deciding what kinds of assessment techniques and evaluation design will best serve the project's needs.

The following sections present an overview of evaluation methods, assessment techniques, data analysis methodology and a discussion of various sources of data appropriate to program evaluation. Sample evaluation forms are presented in Appendix 2.

Evaluation Methods

Four basic methods are available to evaluators of preceptorships. Each has advantages and disadvantages with regard to the effort involved, the time necessary for determination of results, number of subjects on which data may be available, the reliability and validity of information acquired and the usefulness of answers obtained. A particular program must weigh these factors against time and money constraints as well as the interests and skills of its staff.

1. *Retrospective Studies:* Such studies focus on the effects of a preceptorship program or programs on past participants. Included are studies that seek information from preceptees just after completion of an experience with no data acquired prior to the experience. An evaluation that asks the student to describe what he got out of the preceptorship or whether it affected his career plans is retrospective in that it asks the subject to recall a previous state of knowledge or earlier attitude and judge whether a change is attributable to the preceptorship experience.

   Such "after-the-fact" evaluations require minimal time and effort by investigators and have the potential for increased sample sizes if a large number of past participants is available for study. However, the reliability and accuracy of information acquired may vary considerably, even when only a short time has elapsed between experience and assessment. Research in many areas casts doubt upon the validity of conclusions drawn from these kinds of data. An even more serious drawback to this method is that values, attitudes and similar complex judgments are subject to the distortions of time and intervening events

2. *Before-After Studies:* Such studies require assessment of the student both prior to and upon completion of the preceptorship. The student's knowledge, attitudes and values can be compared before and after the program so that any observed change can be attributed with reasonable confidence to the experience.

Before-after studies require a good deal of effort in acquiring or designing instruments or techniques that will permit the observation of change. In addition, efforts must be made to gain the cooperation of the students so that data collection times are consistent for all subjects. One disadvantage this method shares with all prospective methods is that sufficient numbers of subjects for adequate analyses may have to await a number of preceptorship cycles. In addition to the necessity for waiting varying periods of time for completion of data analyses, the investigator must contend with such factors as changes in the programs, alterations in admission requirements, deletion and addition of sites and preceptors, and similar variations that could introduce unwanted variability in the data. The evaluator must be aware of these contingencies and ensure that his assessment techniques are sufficiently sensitive to determine which particular *aspects* of the preceptorship produce change, rather than merely that the "preceptorship" has had some general effect.

Assuming that the measurement techniques used are appropriate for assessing the desired attributes, the before-after method can be considered valid for determining the *short-term* effects of preceptorships in such areas as attitudes, knowledge gain and performance of particular tasks or activities. However, the method does not permit determination of the *relative* effectiveness of the experience in achieving goals.

3. *Comparison Group Studies:* This approach compares goal attainment of preceptees with attainment of the same goals by a comparable group of non-preceptees. It allows determination of the extent to which any observed effects are attributable to a particular experience relative to other experiences or the passage of time. In designing such a study, the investigator may choose to compare preceptees and non-preceptees *only* after the fact. However, such a tactic cannot deal adequately with self-selection into preceptorships and possible initial differences between the two groups. Therefore, comparison group studies often incorporate the before-after design. As such, they require more time and effort in data acquisition and increase the number and complexity of data analyses but they add greatly to the level and utility of conclusions that may be drawn.

4. *Longitudinal Studies*: Study of the long-term effects of preceptorships requires repeated assessment of participants over a number of years. In particular, if goals involve influencing such factors as specialty and community size choice and practice styles, final determination of preceptorship effects can be made only after observation of definite career choices.

   In addition to the lengthy time needed for evaluation results, longitudinal studies require mechanisms for continued tracking of students during their training period and beyond, maintaining adequate addresses for contacting students, and maintaining their continued interest and cooperation. The advantages of this method, particularly when performed in conjunction with a before-after method and a comparison group of non-preceptees, are obvious in terms of both the greater validity of results and the potential completeness of answers.

Assessment Techniques

Assessment techniques available to the evaluator are varied, and selection will depend upon the comprehensiveness of results desired and the purposes to which results are addressed. In selecting assessment techniques, the evaluator should consider the types of analyses to which data will be subjected and whether the results will lend themselves to clear and unambiguous interpretation. Respondents should not be burdened with questions unrelated to program objectives.

Anecdotal Data: Descriptions of individual experiences, impressions obtained by site visitors or preceptors and similar nonsystematically elicited material are properly considered anecdotal. Such information is not useful for formal evaluation of goal attainment because it lacks the controls necessary in research methodology. However, such information can serve to generate hypotheses and direct the investigator to fruitful areas for more rigorous research. It is also valuable for providing important impressionistic information about the program, as well as illustrative material to aid the evaluator in communicating results obtained through formal assessment methods.

Open-Ended Questions: Questions that require the respondent to provide a "free" response rather than select from a set of pre-determined possible responses are open-ended. They include such questions as "What was of most value to you in your preceptorship experience?" or "What factors will you consider in selecting a community in which to practice?" The advantage of this style of questioning, whether via written questionnaire or personal interview, is that it does not limit the scope of possible responses and increases the chances of obtaining a full range of answers from respondents. However, for such free responses to be usable as data they must be coded into categories. Often, two or more independent coders are required in order to assure reliability of the coding system, adding greatly to the time and cost of any evaluation.

Multiple Choice Questions: These kinds of questions avoid the necessity for developing coding categories by providing the respondent with a list of possible answers from which he must make a selection. Such a question might be phrased, "Which of the following was most valuable to you in your preceptorship?" This question would be followed by a list of preceptorship attributes. Similarly, the student would select from a list of community attributes those that he would consider in practice location selection.

This method saves much time and effort in data handling and simplifies data analysis by dealing with a limited set of responses. However, by forcing the subject to select one or a few of a set of possible alternatives, it is not possible to determine the strength of his commitment to the choice or its value relative to other available alternatives.

Rating Scales: Data elicited through the use of rating scales permits determination of both the strength of a response and its value relative to alternative responses. It also generates equal amounts of information about all variables studied, as well as permitting a wider variety of data analysis techniques. Phrasing of the questions might be, "Please rate each of the following in terms of the extent to which you found it valuable in your preceptorship (1 = not at all valuable; 4 = moderately valuable; 7 = extremely valuable. The integers in between represent gradations between these scale points.)"

The same list of alternatives provided for the multiple choice method would be used, but a scale value would be given by the respondent for *each* alternative. The type of scale used and the number of scale points can vary with the nature of the question. However, it often is the case that a single scale will be appropriate for use with a large number of variables so that scale values need not be repeated and comparable data can be obtained for a wide range of areas.

Standardized Assessment Instruments: If the evaluator requires assessment of such attributes as personality and general values, published instruments are available for use in conjunction with assessment materials specific to preceptorship evaluation. Where such instruments meet evaluation requirements, they are of advantage in that response norms are generally available, as are data on various groups

of individuals who may be compared to the preceptorship sample. For example, relatively large amounts of data on medical students and physicians are available for such instruments as the Cattel 16 - Personality Factor Questionnaire, the Edwards Personal Preference Schedule and the Myers-Briggs Type Indicator. Evaluators who use standardized instruments should be thoroughly familiar with their use and interpretation or should use qualified consultants.

In addition to such standardized, published instruments, a number of unpublished instruments have been developed by ongoing preceptorship evaluation projects and general research projects in medical education. Use of a developed instrument that meets the needs of a program may be advantageous, not only in saving instrument development time and effort, but also in having an existing body of data for comparison across programs. Use of a single instrument by disparate programs can enhance the value and generalizability of results obtained and increase knowledge about preceptorship effects.

Data Analysis Techniques

The assessment techniques utilized affect the types of analyses to which data may be subjected and the nature of answers to evaluation questions. Types of analyses may vary from simple frequency distributions for single variables studied, to highly complex multivariate techniques designed to determine relationships among sets of variables. Depending upon the nature of the data and sample sizes, the investigator may be able to determine the relative contribution of each of several program characteristics to a particular variable, such as psycho-social orientation, or to investigate the effects of length of preceptorship experience on students with varying personality attributes. Or, the investigator may determine the amount of clinical knowledge acquired during the preceptorship by examining the significance of the difference in clinical tests taken before and after the experience.

Detailed discussion of the varieties of possible analyses and statistical techniques appropriate for each are beyond the scope of this guide. Program developers should consult with persons experienced in evaluation methodology at an early stage to ensure that methods and assessment techniques will be adequate and appropriate for answering questions at the desired level with adequate precision.

Sources of Assessment Information

Depending upon objectives and uses to which results will be put, data may be collected from one or more of the following participants in the preceptorship experience:

Preceptees - assessment of themselves, program characteristics, the site, site personnel, the preceptor, etc.

Preceptors - assessment of preceptee, site, program characteristics

Faculty - assessment of student, site, preceptor on the basis of site visits, interviews with participants, etc.

Evaluation as a Basis for Course Grades

In some programs where course grades are required for credit, responsibility for grade assignment is given solely to the preceptor as a clinical faculty member. In these cases, it may be helpful to provide the preceptor with criteria for grading. In other programs, assessment materials obtained from the student, the preceptor or both, serve as a basis for faculty assignment of a course grade.

Other Assessment Data

Where a program is interested in the effects of preceptorship on areas for which data are routinely available within a particular medical school, determination of effects merely require obtaining the available data and performing appropriate analyses. Thus, if interest is in comparative performance of preceptees and non-preceptees on national boards, the necessary data and its analysis are easily obtained. Similarly, if a particular medical school routinely collects student data on attitudes and career preferences, a preceptorship project can make use of these data for comparative purposes and avoid the necessity for duplicate data collection. A developing program should determine what information is available and whether it can be of use in preceptorship evaluation.

CONCLUSION AND LIST OF CONSULTANTS

This guide has presented information relevant to all major aspects of preceptorship development and maintenance. Readers who are interested in obtaining more detailed advice and recommendations from specific programs may wish to consult the authors and/or the following consultants. These persons can provide required information or can direct interested individuals to other programs whose characteristics relate to a new program's needs.

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APPENDIX 1

PRECEPTOR APPLICATION FORM

PRECEPTOR APPLICATION FORM

(Sample)

Name _____

Address _____

Phone _____ Date of Birth _____

Internship and Residencies (Type and dates) _____

_____

Specialty _____ Board Certified _____ Yes _____ No _____

Type of Practice: ____ Solo _____ Partnership ____ Group (Number in group__)

Other (Specify) _____

Hospital Affiliations _____

Membership in Medical Societies _____

Number of years in practice _____ Number of years in present location _____

Approximate number patients seen per week: _____

Percent patients seen whose medical problems are: _____ Acute _____ Recurrent

_____ Chronic

Percent office visits for regular check-ups or 'preventive maintenance' _____

Percent patients seen who are referred by other physicians _____

Average number of patients hospitalized per week _____

Please list the kinds and numbers of health professionals employed in your practice who might be involved in teaching students _____

_____

Check those areas you include in your practice of medicine:

_____ Pediatrics
_____ General Medicine
_____ Geriatrics
_____ Preventive Medicine
_____ Obstetrics
_____ Gynecology
_____ Surgery
_____ Orthopedics
_____ Psychological Counseling
_____ City/county health officer
_____ Other

In what kind of continuing education activities are you involved? _____

_____

_____

Would you be able to make necessary housing arrangements for the student during the preceptorship? ___Yes ___No Spouse? ___Yes ___No

If no, type of housing available _____

Have you had previous preceptees? _____Yes _____ No

If yes, how many? _____

Could your practice accommodate two preceptees at the same time? ___Yes ___No

How many students per year would you be willing to take? _____

Do you accept out-of-state students? _____Yes _____No

Any other special preferences or restrictions _____

_____

Any special features of your practice _____

_____

_____

Are there any special medical projects in your community that would interest a student? _____

_____

APPENDIX 2.

SAMPLE EVALUATION INSTRUMENTS

1. Background and Career Preference Questionnaire
2. Clinical Skills Assessment
3. Concept Questionnaire
4. Post-Preceptorship Assessment
5. Preceptee Assessment
6. Preceptor Work-Setting Assessment

BACKGROUND AND CAREER PREFERENCE QUESTIONNAIRE *

(Sample)

Medical School _____ Year of School _____

Age: ___ Sex: ___ Male ___ Female

Marital Status: _ Married _ Single _ Other (specify) _____

Number of children: _____

Community where you spent your high school years:

_____ Large metropolitan area (500,000 people or more)

_____ Suburb of large metropolitan area

_____ Smaller metropolitan area (100,000 to 500,000 people)

_____ Suburb of small metropolitan area

_____ Medium sized city (25,000 to 99,999)

_____ Small town (1,000 to 24,999)

_____ Rural area, farm, reservation, town of less than 1,000

Please rate *all* of the following areas of medicine in terms of your current inclination or disinclination to practice in them. Please use the following scale:

1 = Strongly inclined to *avoid*
2 = Moderately inclined to *avoid*
3 = Slightly inclined to *avoid*
4 = Neither inclined nor disinclined
5 = Slightly inclined to *select*
6 = Moderately inclined to *select*
7 = Strongly inclined to *select*

_____ Anesthesiology, Dermatology, Ophthalmology, Otolaryngology, Radiology

_____ Basic Medical Science (e.g. Pharmacol., Physiol.)

_____ Family Medicine, General Practice

_____ Internal Medicine

_____ General Surgery, Neurosurgery, Orthopedics, Plastic Surgery, Thoracic Surgery

_____ Obstetrics and Gynecology

_____ Pediatrics

*Adapted from The Longitudinal Study, University of New Mexico School of Medicine. Career preference information is collected both pre and post preceptorship. For further information, contact Naomi Quenk, Ph.D.

____ Physical Medicine and Rehabilitation

____ Psychiatry

____ Public Health / Preventive Medicine

Please rate each of the following career settings in terms of your current inclination or disinclination to work in them. PLEASE USE THE SCALE ABOVE:

____ Private Practice, Solo

____ Partnership

____ Private Practice, Groups:

- ____ Mixed Specialty (e.g. small clinic)
- ____ Team Practice of One Specialty
- ____ Large Group (Hospital based)

____ Government Institutions or Agencies

- ____ VA Hospital
- ____ Military Hospital
- ____ City, County or State Hospital
- ____ Public Health Service (Non-Hospital based)
- ____ Government sponsored health program (e.g. NHSC)

____ Non-Government Institutions or Agencies

- ____ Industry
- ____ Private Hospital (Staff physician)
- ____ Independent Medical Foundation (e.g. Kaiser Foundation)
- ____ Research Facility (Medical School or any of above)
- ____ Educational Institution (e.g. Medical School)

How important do you think each of the following factors will be in your choice of a position or practice setting? Please rate each factor on a seven point scale where 1 = Not at all important, will not consider, and 7 = extremely important, crucial to a decision; the integers in between represent gradations of importance between these two extremes.

____ Geographic location

____ Size (Population)

____ Quality of Public School System

____ Cultural Opportunities

____ Recreational Opportunities

____ Spouse Employment

____ Pace of Life

____ Distance from metropolitan area

____ Distance from medical school

____ Availability of support services

____ Community Economic Status

____ Political "climate"

____ Ethnic Distribution

What are your preferences with regard to working in a community with the following characteristics? Please use a seven point scale where 1 = Strongly inclined to *avoid*, and 7 = Strongly inclined to *prefer*.

LOCATION

____ Northeastern U.S.

____ Southeastern U.S.

____ Midwest

____ South Central (Texas, Arkansas, Okla.)

____ Rocky Mountain States

____ West Coast (Wash, Ore, Calif, Alas, Hawaii)

____ Foreign (specify) _____

COMMUNITY SIZE

____ Over 100,000 population (Large metropolitan area)

____ Suburban area adjacent to large metropolitan area

____ Population between 50,000 and 100,000 (medium city)

____ Population between 10,000 and 49,999 (small city)

____ Population less than 10,000 (small town or rural)

ECONOMIC STATUS OF COMMUNITY

____ Poverty or low income area

____ Moderate or mixed income area

____ Wealthy community

TYPICAL LIFESTYLE OR "PACE"

____ Community with a fast pace (e.g. New York, Los Angeles, Chicago)

____ Community with a moderate pace (e.g. Tucson, Portland)

____ Community with a slow pace (e.g. Hitching Post, Kan., Wagon Mound, N.M.)

PLEASE USE THE SCALE BELOW TO RATE THE FOLLOWING ITEMS:

1 = Strongly inclined to *avoid*
2 = Moderately inclined to *avoid*
3 = Slightly inclined to *avoid*
4 = Neither inclined nor disinclined
5 = Slightly inclined to *select*
6 = Moderately inclined to *select*
7 = Strongly inclined to *select*

How inclined would you be to work with the following types of individuals in practicing medicine?

____ Nurse Practitioner

____ Physician's Assistant

____ Physical Therapist

____ Laboratory Technician

____ Nurse-Midwife

____ Health Administrative Staff

____ Community Health Worker

____ Visiting Nurse

____ Licensed Practical Nurse

____ Rehabilitation Therapist

____ Public Health Nurse

How inclined would you be to work as a member of the following kinds of health teams?

____ A team where the physician is in authority with several allied health personnel working directly under his supervision.

____ A team where each member is given authority to make patient care decisions in his own area of expertise without physician approval.

____ A team which functioned under the administration of a citizen's board with physicians and other medical personnel responsible for policy decisions affecting health care delivery.

____ A team which functioned under the supervision of a citizen's board with citizens having major input into policy decisions affecting health care delivery.

CLINICAL SKILLS ASSESSMENT*

(Sample)

For the following procedures and skills, circle that number which most clearly represents how you feel about performing each skill or procedure. Circling a 1 means you feel you cannot do that procedure; circling a 5 means you feel you can. You may respond with any number from 1 to 5 on the continuum.

ANSWER EVERY ITEM General Psychosocial Skills	Can Not				Can
Take a history	1	2	3	4	5
Interview an upset mother	1	2	3	4	5
Counsel a couple with sexual problems	1	2	3	4	5
Inform a teenager that she has gonorrhea	1	2	3	4	5
Perform hypnosis	1	2	3	4	5
Counsel parents of a child with Down's Syndrome	1	2	3	4	5
Counsel a mother whose child has enuresis	1	2	3	4	5
Counsel an anxious preoperative patient	1	2	3	4	5
Counsel a couple on adoption	1	2	3	4	5
Counsel a married woman with gonorrhea	1	2	3	4	5
Inform a biopsy patient that she has cancer	1	2	3	4	5
Counsel a patient with psychosomatic problems	1	2	3	4	5
General Physical Skills (Adult)					
Perform a complete physical exam on an adult	1	2	3	4	5
Perform a rectal exam	1	2	3	4	5
Perform a sigmoidoscopic exam	1	2	3	4	5
Perform a urinalysis	1	2	3	4	5
Perform a CBC	1	2	3	4	5
Perform a cardiopulmonary resuscitation	1	2	3	4	5
Perform a thoracentesis	1	2	3	4	5
Take an EKG	1	2	3	4	5
Problem Management					
Interpret an EKG	1	2	3	4	5
Interpret a standard chest x-ray	1	2	3	4	5
Provide emergency care for a comatose patient	1	2	3	4	5
Interpret SMA 12 lab results	1	2	3	4	5
General Physical Skills (Pediatrics)					
Perform a complete physical exam on a newborn	1	2	3	4	5

*Adapted from Evaluation materials developed at University of Utah Medical Center. The complete form includes sections on surgical skills, Ob-Gyn, office management. The form is administered pre and post preceptorship. For further information, contact Dona Harris, Ph.D.

Check hips for dislocation on a newborn	1	2	3	4	5
Perform a venipuncture on a 1 year old	1	2	3	4	5
Perform a Denver Developmental Screening Test	1	2	3	4	5
Perform an eye check for strabismus on a 5 year old	1	2	3	4	5
Resuscitate a newborn	1	2	3	4	5
Assign a correct Apgar score	1	2	3	4	5
Manage an acute aspirin ingestion	1	2	3	4	5
Manage an infant with diarrhea and dehydration	1	2	3	4	5
Interpret growth charts	1	2	3	4	5
Interpret a Denver Developmental Screening Test	1	2	3	4	5
Provide routine well-baby counseling for a new mother	1	2	3	4	5
Make recommendations about appropriate immunizations in childhood	1	2	3	4	5
Diagnose and appropriately treat streptococcal pharyngitis	1	2	3	4	5
Diagnose and manage acute otitis media	1	2	3	4	5

CONCEPT QUESTIONNAIRE*
(Sample)

The questions in the next sections are asked in order to determine your expectations for the community in which you will be serving your preceptorship. Please underline the most appropriate answer where indicated.

The Community

1. In general, individuals within the community have (excellent, good, fair, less than adequate, very little) understanding of the measures which should be taken to maintain their health.

2. List five such measures. _____

   _____

3. Supporting primary health services within the community (excluding your preceptor) are (excellent, good, fair, poor, nonexistent).

4. List five important primary health service supports (individuals and structures).

   _____

5. Individuals within the community are (highly pleased with, satisfied with, neutral towards, dissatisfied with, anxious about) the primary health service resources of the community.

6. List five important factors which make for comfort and satisfaction with primary care health services. _____

   _____

Economics

1. The majority of patients seen by your preceptor have an annual family income of (less than $5,000, 5-10,000, 10-15,000, 15-20,000, more than $20,000.).

2. The percentage of patients who pay for their office calls out of pocket are (less than 20%, 20-40%, 40-60%, 60-80%, more than 80%).

3. The percentage of patients who have their office calls paid by private insurance are (less than 20%, 20-40%, 40-60%, 60-80%, more than 80%).

4. The percentage of patients who have their office calls paid by Medicare or Medicaid funds are (less than 20%, 20-40%, 40-60%, 60-80%, more than 80%).

5. The percentage of patients for whom financial concerns significantly intefere with visits for *acute medical care* is (less than 20%, 20-40%, 40-60%, 60-80%, more than 80%).

6. The percentage of patients for whom financial concerns significantly interfere with visits for *chronic medical care* is (less than 20%, 20-40%, 40-60%, 60-80%, more than 80%).

*An abbreviated version of the questionnaire developed at the University of Kansas Medical Center. It is administered pre and post preceptorship. For further information contact Ralph Reed, M.D.

7. The percentage of patients for whom financial concerns significantly interfere with visits for *medical disease screening* is (less than 20%, 20-40%, 40-60%, 60-80%, more than 80%).

8. The percentage of patients for whom financial concerns significantly interfere with visits for *health maintenance and health education* is (less than 20%, 20-40%, 40-60%, 60-80%, more than 80%).

9. Your answers to the above questions have been based on limited knowledge and guesses. How do you plan to gather the data necessary for more accurate responses? _____

Preceptor

The following is designed to elicit your anticipations regarding the professional and social life of your preceptor. Please underline the most appropriate choice.

1. The physician spends (less than 20%, 20-40%, 40-60%, 60-80%, more than 80%) of his service time in the office.
2. Of his office time, (less than 20%, 20-40%, 40-60%, 60-80%, more than 80%) is spent in direct service interaction with patients.
3. Of his office time, (less than 20%, 20-40%, 40-60%, 60-80%, more than 80%) is spent in charting.
4. Of his office time, (less than 20%, 20-40%, 40-60%, 60-80%, more than 80%) is spent in other paper work.
5. The physician spends (less than 20%, 20-40%, 40-60%, 60-80%, more than 80%) of his service time in the hospital care of patients.
6. Of his hospital time (less than 20%, 20-40%, 40-60%, 60-80%, more than 80%) is spent directly interacting with patients.
7. Of his hospital time (less than 20%, 20-40%, 40-60%, 60-80%, more than 80%) is spent in charting and other paper work.
8. Of his hospital time (less than 20%, 20-40%, 40-60%, 60-80%, more than 80%) is spent in meetings (staff and other).
9. Access to consultants for secondary consultative care is (excellent, good, fair, poor, practically nonexistent).
10. Access for easy referral to tertiary care facilities is (excellent, good, fair, poor, practically nonexistent).
11. Amount of time available for continuing self-education via courses, reading, interaction with associates is (large, moderate, limited, less than adequate, nonexistent).
12. Nonphysician personnel are utilized in the office to carry out tasks other than those only a physician can do (optimally, very efficiently, fairly efficiently, poorly, hardly at all).
13. The amount of time available to the preceptor for family interaction and recreation is (large, moderate, limited, less than adequate, nonexistent).
14. The physician is (completely, very, moderately, slightly, not at all) isolated from intellectual stimulation.

POST-PRECEPTORSHIP ASSESSMENT*
(Sample)

1. The purpose of this questionnaire is to determine the extent to which a variety of experiences are available at different preceptorship sites. On the basis of your experience at this site, please indicate how frequently you engaged in each of the following activities, using the rating scale provided below:

1 = Never
2 = Once or twice
3 = Several times (3 or 4)
4 = About once a week
5 = Several times a week
6 = Once a day
7 = More than once a day

____ Took patient histories

____ Performed physical examinations

____ Performed diagnostic procedures (e.g., lab tests)

____ Performed therapeutic procedures (e.g., suturing)

____ Made hospital rounds

____ Filled out patient medical records

____ Attended continuing education activities

____ Discussed diagnosis and treatment plans with patients

____ Participated in preventive health programs (e.g., immunizations)

____ Worked in an emergency room

____ Used medical journals or books as a resource for diagnosis and treatment

____ Consulted with medical school physicians about certain patients

____ Attempted to involve the family of an identified patient in improving family health care.

____ Filled out insurance and other third party payment forms

____ Scheduled and monitored patient follow-up

____ Provided health education information to patients (e.g., nutrition, preventive care, etc.)

____ Examined office records (e.g., collections, expenditures)

*Adapted from the AMSA Foundation-NHSC Preceptorship evaluation. For further information contact Naomi Quenk, Ph.D.

2. How frequently did you work or consult with each of the following kinds of health professionals or institutions/agencies? (USE SCALE IN #1)

____ Nurse Practitioner
____ Physician's Assistant
____ Laboratory Technician
____ Nurse-midwife
____ Visiting Nurse
____ Public Health Nur
____ Mental Health Worker
____ Private Physicians
____ Health Administrative Staff
____ Community Mental Health Center
____ Old Age Facility
____ Welfare/Social Service Department

3. On the average what percentage of your working time was devoted to each of the following activities (sum of responses should total 100%).

____ Direct patient care

____ Administrative activities

____ Program planning and development

____ Case consultation

____ Community service

4. In general, how would you rate this community in terms of its attractiveness with respect to the following (use scale below):

1 = Very unattractive
2 = Moderately unattractive
3 = Slightly unattractive
4 = Neither attractive nor unattractive
5 = Slightly attractive
6 = Moderately attractive
7 = Very attractive

____ A place to practice medicine for a few years

____ A place to set up long-term medical practice

____ A place for a single physician

____ A place for a married physician

____ A place to bring up a family

5. To what extent did your preceptorship experience increase your awareness, understanding or knowledge of each of the following? Use a seven point rating scale where 1 = not at all, to no extent, and 7 = a great deal, to a great extent. The integers in between represent gradations between these two extremes.

____ The available mechanisms for financing health care

____ Methods of improving community health status

____How to use other resources for health care available in the community

____The special health care needs of the elderly

____Methods of disseminating important health information to the community at large

____How to seek out medical consultation from less readily available sources outside the community

____How patients enter and move through the system of medical care in the community

____Typical consumer resistances to "modern" health care procedures (e.g., lab technicians, physician extenders)

____The special skills and capabilities of physician extenders

____How to work effectively with poorly educated or poorly motivated patients

____How to develop treatment strategies suited to the values and needs of particular ethnic and socio-economic groups

____How to work on health problems at a community program level

____What factors are important in making an office practice economically viable

____How to use and maintain office medical equipment

____How to select appropriate methods for augmenting my clinical knowledge

____When to admit patients to the hospital

____How to use problem-oriented medical records

____How to establish treatment goals in the context of the family and psychosocial situation of the patient

____The special features of managing chronic illness

____My own strenths and weaknesses in the area of patient interaction

____My own strengths and weaknesses in interacting with other health professionals

6. To what extent did your experience help in clarifying your own preferences in each of the following areas? (Use previous scale where 1 = not at all, to no extent, and 7 = a great deal, to a great extent.)

____Area of medicine (specialty)

____Type of practice (e.g., solo, group)

____Type of work (e.g., clinical, administration, teaching)

____Geographic region of practice

____ Size of community in which to locate

____ Desired socio-economic characteristics of patient population

____ Work in the private vs. the government sector

7. To what extent were you satisfied with your preceptor with regard to each of the following? (Use same scale where 1 = to no extent, not at all satisfied, and 7 = to a great extent, extremely well satisfied.)

____ Allowing me freedom to explore my own interests in medicine

____ Providing constructive criticism of my clinical skills

____ Providing constructive criticism of my patient-interaction skills

____ Instructing me in the economics of office practice

____ Legitimizing my presence and activities in community health care facilities

____ Including me in all aspects of his/her work

____ Being available when I needed him/her

____ Being willing to allow me to undertake tasks of which I felt I was capable

____ As a preceptor, in general

8. To what extent were each of the following phenomena characteristic of your preceptorship experience? (Use scale where 1 = to no extent, extremely uncharacteristic, and 7 = to a great extent, extremely characteristic.)

____ High quality medical care was provided at the site.

____ The preceptor varied his approach to patients who possessed different values and expectations.

____ The preceptor and I met to discuss patients.

____ The preceptor and I reviewed and evaluated my learning experience at the site.

____ Interpersonal relations among site staff were harmonious.

____ Role confusion was evident among various site staff members.

____ Difficult or unusual cases were referred out to other physicians or facilities.

____ The preceptor and I had informal discussions about various aspects of being a physician.

____ I felt I was making a unique contribution to the health care team.

____ The preceptor complimented me when I did an outstanding job.

9. Please indicate the extent to which you agree with each of the following statements using the scale below.

1 = Strongly disagree
2 = Moderately disagree
3 = Slightly disagree
4 = Neither agree nor disagree
5 = Slightly agree
6 = Moderately agree
7 = Strongly agree

___ The family physician has unique skills and functions which can't be duplicated by medical specialists or physician extenders.

___ Providing total medical care in the context of a patient's family is a good idea, but it doesn't work out well in practice.

___ The primary care physician is likely to feel that the care he provides is second-rate.

___ Top-notch modern medicine simply can't be practiced in remote areas given the lack of support facilities and expert consultation.

___ The satisfaction of knowing you have provided medical care where little or none existed before is sufficient motivation for practicing in a remote shortage area.

___ The demands on the time of a primary care physician in a remote setting make it impossible for him/her to have a satisfying personal life.

___ With medical specialists above him and physician extenders below, not much of an area of expertise is left for the family physician.

___ Isolation from the larger medical community is an important deterrent from practicing in a remote area.

___ The lack of intellectual and social stimulation in small communities outweighs the appeal of the slower-paced lifestyle.

___ Providing primary care in the absence of all the trappings of modern medicine is exciting and a challenge to the skill and ingenuity of the physician.

___ A responsible primary care physician in a remote area will always send his/her more difficult cases to specialists.

___ Seeing the results of your treatment is perhaps the most gratifying aspect of providing primary medical care.

___ The challenge of being in a position to improve both individual and environmental health in a small community is very appealing.

___ Most of the medical problems seen by primary care physicians in small communities are routine and uninteresting.

___ The expectations community members have of a local doctor are unrealistic and cannot be fulfilled by a family physician.

___ You don't need a high-powered medical school education to adequately treat the majority of problems brought to the primary care physician.

___ Outside of work, there isn't much to do in the boondocks.

PRECEPTEE ASSESSMENT*
(Sample)

1. By the end of the preceptorship experience, to what extent did your preceptee demonstrate evidence of: Use a seven point rating scale where 1 = not at all, to no extent and 7 = a great deal, to a great extent. The integers in between represent gradations between these two extremes. If you are unable to rate a particular item due to insufficient basis for making an assessment, use a zero (0) to indicate this.

____Knowing methods for managing epidemic disease

____Knowing the available mechanisms for financing health care

____Knowing methods for improving public health practices

____Being able to contribute his own skills and knowledge to the functioning of a health team

____Knowing how to use other resources for health care available in the community

____Being sensitive to special health care problems and needs of the elderly

____Knowing how to disseminate health information to the community at large

____Being able and willing to seek out medical consultation from less readily available sources outside the community

____Knowing how patients enter and move through the system of medical care in the community

____Knowing how to work with community health agencies in the management of particular patients

____Knowing some of the typical consumer resistances to different forms of health care delivery(e.g., large hospital based)

____Knowing some of the typical consumer resistances to "modern" health care procedures (e.g., lab technicians, physician extenders)

____Knowing how to use the special skills and capabilities of physician extenders

____Skill in working effectively with poorly educated or poorly motivated patients

____Being able to develop treatment strategies suited to the values and needs of particular ethnic and socio-economic groups

____Being able to "diagnose" environmental and/or social contributors to illness

____A willingness to work on health problems at a community program level

____Knowing what factors are important in making an office practice economically viable

*Adapted from the AMSA Foundation-NHSC Preceptorship evaluation. For further information, contact Naomi Quenk, Ph.D.

____ Skill in the use and maintenance of office medical equipment

____ Being able to deal with medical emergencies

____ An ability to select appropriate methods for augmenting his/her clinical knowledge

____ Knowing when to admit patients to the hospital

____ Knowing how to use problem-oriented medical records

____ Skill in establishing treatment goals in the context of the family and psychological situation of the patient

____ Knowing procedures for admitting patients to the hospital

____ Knowing how the various elements of a hospital function separately and together

____ Knowing the special features of managing chronic illness

____ Knowing how to work effectively with the facility's governing community board

____ Knowing his/her own strengths and weaknesses in the area of patient interaction

____ Knowing his/her own strengths and weaknesses in interacting with other health professionals

____ Having changed his attitudes and view about medical care from those he held initially

____ Having changed his own career goals in medicine

2. To what extent did the student's presence at the site (Use same rating scale as in #1 above):

____ Increase the daily work load of the preceptor

____ Decrease the daily work load of the preceptor

____ Increase the work load of other staff members

____ Decrease the work load of other staff members

____ Add to community awareness, knowledge or effectiveness with regard to community health problems

____ Improve health care attitudes and behaviors of individual patients

____ Increase community understanding/acceptance of the preceptorship

____ Facilitate utilization of medical school faculty consultation on clinical problems

____Provide community members with a better understanding of the needs and interests of young physicians

____Provide intellectual stimulation for the preceptor

____Add to the effectiveness of clinic operations

3. To what extent were you satisfied with your preceptee with regard to each of the following? Use same scale where 1 = to no extent, not at all satisfied and 7 = to a great extent, extremely well satisfied.

____Taking initiative in exploring his/her own interests in medicine

____Accepting and utilizing constructive criticism of his/her clinical skills

____Accepting and utilizing constructive criticism of his/her patient-interaction skills

____Showing interest in and learning about the economics of office practice

____Working effectively with community health care facilities

____Working at a level consonant with his/her level of medical training

____Getting involved in all aspects of the medical care system

____Getting involved in the social/recreational activities available in the area

____Accepting guidance in performing his/her project

____Understanding and demonstrating the attributes of his/her future role as a physician

____Acquiring and utilizing knowledge about the appropriate use of community medical and social service consultative resources

____Being available when needed

____Willingness to undertake tasks of which I judged him/her to be capable

____As a preceptee, in general

PRECEPTOR
WORK-SETTING ASSESSMENT*
(Sample)

1. On the average, what percentage of your time is devoted to each of the following activities (Sum of responses should be 100%):

____Direct patient care

____Teaching or supervision

____General administration

____Program planning and development

____Case consultation

____Professional community service (talks, advisory groups)

____Other (Please specify) _____

2. How frequently do you engage in each of the following specific activities (Use scale below):

1 = Never
2 = Occasionally
3 = About once a month
4 = About once a week
5 = Several times a week
6 = Once a day
7 = Several times a day

____Make hospital rounds

____Perform laboratory procedures

____Attend continuing education activities

____Discuss diagnosis and treatment plans with patients

____Consult with private community physicians or other community health personnel about patients

____Participate in such preventive programs as immunizations, accident prevention training, ambulance training

____Work in an emergency room at night or on weekends

____Develop and/or monitor rehabilitation plans

____Discuss and/or set medical fees with patients

____Develop treatment goals and methods of attainment

____Use medical journals or books as a resource for diagnosis and treatment

*Adapted from the AMSA Foundation-NHSC Preceptorship evaluation. For further information contact Naomi Quenk, Ph.D.

____Consult with medical school physicians about certain patients

____Participate in a "team approach" to medical care (i.e. where a group of health professionals are involved in developing and monitoring treatment plans)

____Attempt to involve the family of an identified patient in improving their family health care

____Fill out insurance and other third party payment forms

____Schedule and monitor patient follow-up

____Provide health education information to patients (e.g., nutrition, preventive care, etc.)

____Order equipment or supplies for the site

____Examine office records (e.g., collections, expenditures, etc.)

____Attend meetings of local medical organizations

____Discuss community health needs/goals with local community

3. How frequently do you work or consult with each of the following kinds of health professionals or institutions/agencies (Use same scale as above):

____Nurse practitioner

____Physician's assistant

____Physical therapist

____Laboratory technician

____Nurse-midwife

____Visiting nurse

____Licensed practical nurse

____Registered nurse

____Rehabilitation therapist

____Public health nurse

____Mental health worker

____Community health worker

____Private physicians

____Health administrative staff

____Public health clinic

____Community Mental Health Center

____Old age facility

____Welfare/Social Service Department

____Private hospital

____Medical school

4. How frequently do you engage in each of the following non-medical activities?

____Church activities

____Community socials

____Outdoor sports

____Cultural activities

____Other outdoor activities (e.g., hiking, rockhounding)

____Informal social activities with members of site staff

____Informal social activities with individuals in community

5. In general, how do you rate this community in terms of its attractiveness with respect to the following (use scale below):

1 = Very unattractive
2 = Moderately unattractive
3 = Slightly unattractive
4 = Neither attractive nor unattractive
5 = Slightly attractive
6 = Moderately attractive
7 = Very attractive

____A place to practice medicine for a few years

____A place to set up a long-term medical practice

____A place for a single physician

____A place for a married physician

____A place to bring up a family

6. Please indicate the extent to which you agree or disagree with each of the following statements using the scale below:

1 = Strongly disagree
2 = Moderately disagree
3 = Slightly disagree
4 = Neither agree nor disagree
5 = Slightly agree
6 = Moderately agree
7 = Strongly agree

____The family physician has unique skills and functions which can't be duplicated by medical specialists or physician extenders.

____Providing total medical care in the context of a patient's family is a good idea, but it doesn't work out well in practice.

____The primary care physician is likely to feel that the care he provides is second rate.

____Top-notch modern medicine simply can't be practiced in remote areas given the lack of support facilities and expert consultation.

____The satisfaction of knowing you have provided medical care where little or none existed before is sufficient motivation for practicing in a remote shortage area.

____The demands on the time of a primary care physician in a remote setting make it impossible for him/her to have a satisfying personal life.

____With medical specialists above him and physician extenders below, not much of an area of expertise is left for the family physician.

____Isolation from the larger medical community is an important deterrent from practicing in a remote area.

____Providing primary care in the absence of all the trappings of modern medicine is exciting and a challenge to the skill and ingenuity of the physician.

____A responsible primary care physician in a remote area will always send his/her more difficult cases to specialists.

____Seeing the results of your treatment is perhaps the most gratifying aspect of providing primary medical care.

____The challenge of being in a position to improve both individual as well as environmental health in a small community is very appealing.

____Most of the medical problems seen by primary care physicians in small communities are routine and uninteresting.

____The expectations community members have of a local doctor are unrealistic and cannot be fulfilled by a family physician.

____You don't need a high-powered medical school education to adequately treat the majority of problems brought to the primary care physician.

____Outside of work, there isn't much to do in the boondocks.

APPENDIX 3

PRECEPTORSHIP BIBLIOGRAPHY

and

EVALUATION REFERENCES

PRECEPTORSHIP BIBLIOGRAPHY*

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